

12/20KV Power Cables Single Core Cables to IEC 60502

Single Core 12/20KV (Um=24KV) Dimensional Data

Nom. Cross-Section Area				Unarmoured Cables				Aluminium Wire Armoured Cables					
	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						Cu	AL					Cu	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
25	5.5	0.1	16	1.8	24	720	560	1.2	1.6	1.8	29	1200	980
35	5.5	0.1	16	1.8	25	840	620	1.2	1.6	1.9	30	1350	1070
50	5.5	0.1	16	1.8	26	990	690	1.2	2.0	2.0	33	1550	1250
70	5.5	0.1	16	1.8	28	1230	800	1.2	2.0	2.1	35	1840	1420
95	5.5	0.1	16	1.9	30	1530	940	1.2	2.0	2.1	37	2160	1570
120	5.5	0.1	16	2.0	31	1810	1050	1.2	2.0	2.2	38	2470	1730
150	5.5	0.1	25	2.0	33	2110	1190	1.2	2.0	2.2	40	2810	1890
185	5.5	0.1	25	2.1	35	2510	1360	1.2	2.0	2.3	42	3240	2090
240	5.5	0.1	25	2.1	38	3130	1610	1.3	2.5	2.4	45	4150	2580
300	5.5	0.1	25	2.2	40	3760	1860	1.3	2.5	2.5	48	4800	2890
400	5.5	0.1	35	2.3	43	4650	2220	1.4	2.5	2.6	52	5780	3350
500	5.5	0.1	35	2.4	46	5530	2545	1.5	2.5	2.7	55	6850	3850
630	5.5	0.1	35	2.5	50	6700	3100	1.5	2.5	2.9	60	8380	4400
800	5.5	0.1	50	2.6	55	8580	3690	1.6	2.5	3.0	64	10130	5270

1000	5.5	0.1	50	2.7	59	10620	4445	1.7	2.5	3.1	68	12180	6000
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*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen 1 sec	Short Circuit Rating of Copper Tape Screen 1 sec	Reactance		Inductance		Impedance			
								Trefoil	Flat Spaced	Trefoil	Flat Spaced	Trefoil		Flat spaced	
												Cu	AL	Cu	AL
mm ²	μΩ/m	μΩm	kA	pF/m	mA/m	kA	kA	μΩ/m		nH/m		μΩ/ m		μΩ/ m	
25	727/1200	927/1538	3.6/2.3	142	0.62	2.6	0.6	162	214	490	680	936	1544	952	1554
35	524/868	668/1113	5.0/3.2	162	0.65	2.6	0.7	150	207	470	660	679	1121	695	1131
50	387/641	494/822	6.8/4.4	177	0.71	2.6	0.8	141	201	450	640	511	834	527	844
70	268/443	343/568	9.8/6.3	200	0.80	2.6	0.8	135	195	430	620	364	583	386	597
95	193/320	248/410	13.3/8.5	222	0.89	2.6	0.9	129	188	410	600	272	427	300	446
120	153/253	196/325	17.2/11.0	241	0.96	2.6	0.9	122	182	390	580	225	345	257	367
150	124/206	159/265	21.2/13.5	257	1.03	4.3	1.0	116	176	370	560	193	287	229	313
185	99.1/164	128/211	26.6/17.0	280	1.12	4.3	1.0	116	173	370	550	165	237	206	267
240	75.4/125	98/161	34.9/22.3	307	1.23	4.3	1.1	110	170	350	540	140	191	185	226
300	60.1/100	80/130	43.8/28.0	336	1.34	4.3	1.2	107	166	340	530	126	163	174	203
400	47.0/77.8	64/102	57.3/36.6	370	1.48	5.8	1.3	100	160	320	510	113	141	164	184
500	36.6/60.5	51/81	72.3/46.2	406	1.62	5.8	1.4	97	154	310	490	105	124	158	171
630	28.3/46.9	42/64	91.2/58.3	449	1.80	5.8	1.5	94	151	300	480	97	110	151	160
800	22.1/36.7	35/55	114.4/75.0	490	1.85	8.2	1.6	91	151	290	480	92	101	147	153

1000	17.6/29.1	30/46	143.0/94.0	540	2.03	8.2	1.7	87	148	280	470	88	95	144	148
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* For capacitance & charging current values, multiply values shown by 1.2 for EPR insulated cables.